



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

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D407-667-105MB
Job Sheet 189423



66 8558

Part No: D407-667-105MB

Job Qty: 1 pcs

Part Name: Fwd Crosstube - High 407, Matte Black



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/24/19

Job Tracking No:

Due Date: 3/8/19

Created By: Jesse White

Type: SOLD

Description:

Note: DWG D407-667-145 REV.D / IIN-D206-667 REV.D IPP Rev:F 05.09.01 Add holes for comp. w/ Bell Skids
K/J/JLM IPP Rev:G 08-05-16 chg QC6 to QC15 DD ver:EC IPP Rev:H 08-06-03 update per DSI9415
(ECN1198) DD ver:ec IPP Rev:I 08-07-14 add (scribe inside of tube) seq.6 DD ver:EC IPP Rev:J 08-07-28
update per (par 08-013) DD ver:EC IPP Rev K 09.01.06 ECN 08-562 EC ver:DD IPP REV:L 11.08.05 PER
ECN 11-615 DD VERF:EC IPP REV:M 12.08.20 DSI9628 revA (ECN12-631) DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup	Run	Workcenter / Supplier	Lead Time	
110	Packaging 1 - Pick Kit	1 pcs	3/8/19		0.00	0.00	Packaging 1 - 1		
							Packaging 1 - 2		
							Packaging 1 - 3		
							Packaging 1 - 4		
							Packaging 1 - 5		
							Packaging 1 - 6		
							Packaging 1 - 7		
							Packaging 1 - 8		
							Packaging 1 - 9		
							Packaging 1 - 10		
							Packaging 1 - 11		
							Packaging 1 - 12		
							Packaging 1 - 13		
							Packaging 1 - 14		
							Packaging 1 - 15		
							Packaging 1 - 16		
							Packaging 1 - 17		
							Packaging 1 - 18		
							Packaging 1 - 19		
							Packaging 1 - 20		
							Packaging 1 - 21		
							Packaging 1 - 22		
							Packaging 1 - 23		
							Packaging 1 - 24	GP 19-02-06	
							Packaging 1 - 25		
							Packaging 1 - 26		
							Packaging 1 - 27		
							Packaging 1 - 28		

					Packaging 1 - 29	
					Packaging 1 - 30	
					Packaging 1 - 31	
					Packaging 1 - 32	
					Packaging 1 - 33	
					Packaging 1 - 34	
					Packaging 1 - 35	
					Packaging 1 - 36	
120	Crosstubes - Bend - 2 - B4B	1 pcs	3/8/19	3.77 2.50	Crosstubes - Bend - B4B	GP/BB 19-02-06
130	QC 15	1 pcs	3/8/19	0.00 0.00	QC 15 - 12	
					QC 15 - 3	
					QC 15 - 38	
					QC 15 - 47	
					QC 15 - 49	
					QC 15 - 58	
					QC 15 - 9	
140	Crosstubes - 2 - B4B	1 pcs	3/8/19	0.00 1.28	Crosstubes - 1 - B4B	PD / FEB 06 2019 68 9-89
					Crosstubes - 2 - B4B	GP 19-02-19
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
150	Crosstubes - 3 - B4B	1 pcs	3/8/19	0.00 0.36	Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	GP 19-02-19
					Crosstubes - 4 - B4B	
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
160	QC 5	1 pcs	3/8/19	0.00 0.00	QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 38	
					QC 5 - 42	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	DAS FEB 19 2019 68 9-89
					QC 5 - 9	
					QC 5 - 50	
					QC 5 - 30	
170	QC 7	1 pcs	3/8/19	0.00 0.00	QC 7 - 10	
					QC 7 - 13	
					QC 7 - 14	
					QC 7 - 15	
					QC 7 - 17	
					QC 7 - 18	
					QC 7 - 19	
					QC 7 - 2	
					QC 7 - 28	
					QC 7 - 3	
					QC 7 - 30	
					QC 7 - 34	

Plex 1/28/19 4:02 PM Dart.Hadley.Shannon

				QC 7 - 36	
				QC 7 - 37	
				QC 7 - 38	
				QC 7 - 41	1819-2-19
				QC 7 - 47	
				QC 7 - 48	
				QC 7 - 51	
				QC 7 - 58	
				QC 7 - 59	
				QC 7 - 6	
				QC 7 - 60	
				QC 7 - 9	
				QC 7 - 68	
				QC 7 - 50	
				QC 7 - 67	
180 Outsource - 2 - NDT per QSI038	1 pcs	3/8/19		SKY002-VC	CT 19-02-19
190 Packaging 2-1 - Receive - B4B	1 pcs	3/8/19	0.00 0.00	Packaging 2 - 1 - B4B	
				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	FEB 21 2019
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
200 QC 6	1 pcs	3/8/19	0.00 0.00	QC 6 - 38	
				QC 6 - 42	
				QC 6 - 9	
				QC 6 - 68	FEB 25 2019
				QC 6 - 61	9-89
210 Spray Paint - 2 - B4B	1	3/8/19	0.00 0.25	Spray Paint - 1 - B4B	R.D. 19-2-23

220 QC 14	pcs	1	3/8/19	0.00 0.00	Spray Paint - 2 - B4B	
					Spray Paint - 3 - B4B	
					Spray Paint - 4 - B4B	
					QC 14 - 15	
					QC 14 - 2	
					QC 14 - 34	
					QC 14 - 38	
					QC 14 - 41	AL 19-2-25
					QC 14 - 51	
					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	
					QC 14 - 68	
230 Crosstubes - 4 - B4B	pcs	1	3/8/19	0.00 1.52	Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	AL 19-3-1
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
240 QC 5	pcs	1	3/8/19	0.00 0.00	QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 38	
					QC 5 - 42	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	AL 19-03-05
					QC 5 - 50	
					QC 5 - 30	
250 Packaging 1-1 - Pick Kit - B4B	pcs	1	3/8/19	0.00 0.00	Packaging 1 - 1 - B4B	
					Packaging 1 - 2 - B4B	
					Packaging 1 - 3 - B4B	
					Packaging 1 - 4 - B4B	MAR 07 2019 6
					Packaging 1 - 5 - B4B	9-89
					Packaging 1 - 6 - B4B	
					Packaging 1 - 7 - B4B	
					Packaging 1 - 8 - B4B	
					Packaging 1 - 9 - B4B	
					Packaging 1 - 10 - B4B	
					Packaging 1 - 11 - B4B	
					Packaging 1 - 12 - B4B	
					Packaging 1 - 13 - B4B	
					Packaging 1 - 14 - B4B	
					Packaging 1 - 15 - B4B	
					Packaging 1 - 16 - B4B	
					Packaging 1 - 17 - B4B	
					Packaging 1 - 18 - B4B	
					Packaging 1 - 19 - B4B	
					Packaging 1 - 20 - B4B	
					Packaging 1 - 21 - B4B	
					Packaging 1 - 22 - B4B	

				Packaging 1 - 23 - B4B		
				Packaging 1 - 24 - B4B		
				Packaging 1 - 25 - B4B		
				Packaging 1 - 26 - B4B		
				Packaging 1 - 27 - B4B		
				Packaging 1 - 28 - B4B		
				Packaging 1 - 29 - B4B		
				Packaging 1 - 30 - B4B		
				Packaging 1 - 31 - B4B		
				Packaging 1 - 32 - B4B		
				Packaging 1 - 33 - B4B		
				Packaging 1 - 34 - B4B		
				Packaging 1 - 35 - B4B		
				Packaging 1 - 36 - B4B		
260	QC 4	1 pcs	3/8/19	0.00 0.00	QC 4 - 26	
					QC 4 - 28	
					QC 4 - 38	
					QC 4 - 42	
					QC 4 - 58	
					QC 4 - 6	
					QC 4 - 69	DAS
					QC 4 - 9	46
					QC 4 - 46	9-88 MAR 08 2019
265	DC - 1 - B4B	1 pcs	3/8/19	0.00 0.00	DC - 1 - B4B	
					DC - 2 - B4B	
270	Packaging 3-1 - Stock - B4B	1 pcs	3/8/19	0.00 0.00	Packaging 3 - 1 - B4B	DAS
					Packaging 3 - 2 - B4B	16 MAR 08 2019
					Packaging 3 - 3 - B4B	9-88
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Plex 1/28/19 4:02 PM Dart.Hadley.Shannon	

				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
280 QC 21 - FG	1	3/8/19	0.00 0.00	QC 21 - FG - 21	
	pcs			QC 21 - FG - 70	

Part Op 110 - (Pick Kit)
 Descriptions: 120 - (CNC Alpha 160 Bender) Bend tube as per Dwg D407-667-145 using CNC bender program 407-fw
 130 - (QC15- Crosstube Dimensional Check)
 140 - (Crosstubes) ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED
 BY: ***** 1- Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D407-667-145. Drill all (3) top holes. Holes facing inboard. 2- Drill Fwd rivet holes using drill Jig DT8787 fwd as per Dwg D407-667-145. 3- C'sink holes as per Dwg D407-667-145. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins .Drill ONLY 2 top holes ONLY plug most bottom holes to prevent accidental drilling. 5- Drill holes and ream using drill Jig DT8541 & DT8542 as per Dwg D407-667-145. Drill only the top (2) holes. 6- Drill Aft rivet holes using drill Jig DT8787 aft as per Dwg D407-667-145. 7- C'sink holes as per Dwg D407-667-145. Allow rivet to sit below surface to compensate for paint. 8- Scribe part # and batch # using vibrating stylus as per Dwg D407-667-145 9- *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-145
 150 - (Crosstubes Chemical Conversion) ***IMMEDIATELY AFTER GRINDING*** 1- PRESSURE WASH X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.
 160 - (QC5- Inspect part completeness to step on W/O)
 170 - (QC7-Inspect Chemical Conversion Coat)
 180 - Outsource2 (Outsource process - NDT per QSI038 4.1) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** OUTSIDE SERVICE -CROSSTUBES Liquid Penetrant Inspection as per QSI 038 Or Level 2 Attach copy of NDT results to work order
 190 - (Receive & Inspect for Damage & Mat'l Certs) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Inspect for transit damage
 200 - (QC6- All purchased or subcontracted products) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Inspect for damage & ensure results are as per Dwg D206-667-145
 210 - (Spray Paint / NDT Room) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** ***MASK AREA UNDER CLAMP PRIOR TO PAINTING AS PER DWG*** 1-Prime inside and outside crosstube as per QSI 005 4.2.1 *****Let tube sit up right for 30mins before hanging***** P4500-P-23 Base Batch: 5148904 P4500-C-23 Catalyst Batch: 131486 Start time: Finish: *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 1-Paint outside crosstube with White Imron as per QSI 005 4.2 Imron 55U white paint 0/ack
 Batch: 131486 Imron 125S activator Batch: 5146085 Start: 19-2-24
 220 - (QC14- Inspect Spray Paint) Then,Wrap in plastic bag to protect from scratches
 230 - (Crosstubes) INSTALL GROUNDING CLAMP AND SEAL WITH SIKAFLEX AS PER DWG A/R SIKAFLEX BATCH: 1-Abraide mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports with Proseal 890 per D407-667-145 and QSI 015 A/R Proseal 890 Batch: 6138996 EXP: 19-6 3-Install supports clamps Using Dt9565 as per Dwg D407-667-145 ,Torque to 80-100 IN-LBS. Start: 19-2-24 Finish: 19-2-27 4-Install nut plates as per Dwg D407-667-145. Touch-up rivet heads with Imron paint.
 240 - (QC5- Inspect part completeness to step on W/O) ***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***
 250 - (Pick Kit)
 260 - (QC4- 100% Inspect kits for completeness)
 265 - (Document Control) Photocopy bluefile and create labels as per PPP D407-667-105 CHG005
 270 - (Identify as per dwg & Stock Location:) Identify and pack for shipping as per PPP D407-667-105 Location : FG097
 280 - (QC21- Final Inspection - Work Order Release)

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
D407-667-105TRN	Crosstube Turning Detail	1 Ea (1 ea)	110-Packaging 1 - Pick Kit	5046948
D2873-043	Nut Plate Assembly	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
D2873-045	Nut Plate Assembly	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
D2891-1	Support 2.25	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
D3595-063-395	Rubber Cushion 0.63" Wide X 3.95" Long	4 pcs (4 ea)	230-Crosstubes - 4 - B4B	
MS20601-AD4W10	Rivet	14 Ea (14 ea)	230-Crosstubes - 4 - B4B	
MS21920-20	Clamp	4 Ea (4 ea)	230-Crosstubes - 4 - B4B	
AN742D36	Plain Clamp Loop	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
MS21042-3	Nut use MS21042L3 per QSI 017	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
MS27039-1-08	Screw	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
MS9165-05	Bracket	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
NAS1149C0332R	Washer	4 Ea (4 ea)	230-Crosstubes - 4 - B4B	
AN5-10A	Bolt	10 Ea (10 ea)	250-Packaging 1-1 - Pick Kit - B4B	513580513 514732613
AN5-30A	Bolt	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5104262
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5088783-102 500598202
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5109148
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging 1-1 - Pick Kit - B4B	5123450

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-Packaging 1 - Pick Kit 230-Crosstubes - 4 - B4B	D407-667-105TRN	1	6	0
	AN742D36	2	39	0
	D2873-043 5133733	2	58	0
	D2873-045 5133728	2	32	0
	D2891-1 5140903	2	12	0
	D3595-063-395 5033993	4	91	0
	MS20601-AD4W10 5019432	14	302	0
	MS21042-3	2	221	0
	MS21920-20 5039554	4	143	0
	MS27039-1-08	2	507	0
	MS9165-05	2	25	0
	NAS1149C0332R	4	3,259	0
	AN5-10A	10	194	0
	AN5-30A	4	59	0
250-Packaging 1-1 - Pick Kit - B4B	AN5-32A	4	453	0
	MS21042L5	4	302	0
	NAS1149D0563J	18	1,019	0

Part Specifications				
Specifications could not be found.				



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Canada

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D407-667-105MB
Job Sheet 189423



Part No: D407-667-105MB **Job Qty:** 1 ea

Part Name: Fwd Crosstube - High 407, Matte Black



Part Weight: 0 lbs **Status:** New **Priority:** Medium

Job Created: 1/24/19 **Job Tracking No:**

Due Date: 3/8/19 **Created By:** Jesse White

Type: SOLD **Description:**

Note: DWG D407-667-145 REV.D / IIN-D206-667 REV.D IPP Rev:F 05.09.01Add holes for comp. w/ Bell Skids
KJ/JLM IPP Rev:G 08-05-16 chg QC6 to QC15 DD verf:EC IPP Rev:H 08-06-03 update per DSI9415
(ECN1198) DD verf:ec IPP Rev:I 08-07-14 add (scribe inside of tube) seq.6 DD verf:EC IPP Rev:J 08-07-28
update per (par 08-013) DD verf:EC IPP Rev K 09.01.06 ECN 08-562 EC verf:DD IPP REV:L 11.08.05 PER
ECN 11-615 DD VERF:EC IPP REV:M 12.08.20 DSI9628 revA (ECN12-631) DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing									
Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		3/8/19	0.00	0.00	Start Up Stores/Pkg-1		
110	Packaging	1 pcs		3/8/19	0.00	0.00	Packaging1-4		
120	CNC Bend Crosstubes	1 pcs		3/8/19	3.77	2.50	CNC Bend Crosstube		DAS
130	QC	1 pcs		3/8/19	0.00	0.00	QC15		FEB 06 2019 9-89
140	Crosstubes	1 pcs		3/8/19	0.00	1.28	Crosstubes-2		
150	HandFXtube	1 pcs		3/8/19	0.00	0.36	HandFinish5		
160	QC	1 pcs		3/8/19	0.00	0.00	QC5		
170	QC	1 pcs		3/8/19	0.00	0.00	QC7-3		
180	Outsource	1 pcs		3/8/19			SKY002-VC		
190	Packaging	1 pcs		3/8/19	0.00	0.00	Packaging2		
200	QC	1 pcs		3/8/19	0.00	0.00	QC6		
210	SprayPaint	1 pcs		3/8/19	0.00	0.25	Spray Paint		
220	QC	1 pcs		3/8/19	0.00	0.00	QC14		
230	Crosstubes	1 pcs		3/8/19	0.00	1.52	Crosstubes-2		
240	QC	1 pcs		3/8/19	0.00	0.00	QC5		
250	Packaging	1 pcs		3/8/19	0.00	0.00	Packaging1-4		
260	QC	1 pcs		3/8/19	0.00	0.00	QC4		DAS
265	DC	1 pcs		3/8/19	0.00	0.00	DC		21 MAR 11 2019 9-89
270	Packaging	1 pcs		3/8/19	0.00	0.00	Packaging3-2		DAS
280	QC21-FG	1 Ea		3/8/19	0.00	0.00	QC21		21 MAR 11 2019 9-89

Part Op 120 - Bend tube as per Dwg D407-667-145 using CNC bender program 407-fw

Descriptions: 140 - ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: ***** 1- Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D407-667-145. Drill all (3) top holes. Holes facing inboard. 2- Drill Fwd rivet holes using drill Jig DT8787 fwd as per Dwg D407-667-145. 3- C'sink holes as per Dwg D407-667-145. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins .Drill ONLY 2 top holes ONLY plug most bottom holes to prevent accidental drilling. 5- Drill holes and ream using drill Jig DT8541 & DT8542 as per Dwg D407-667-145. Drill only the top (2) holes. 6- Drill Aft rivet holes using drill Jig DT8787 aft as per Dwg D407-667-145. 7- C'sink holes as per Dwg D407-667-145. Allow rivet to sit below surface to compensate for paint. 8- Scribe part # and batch # using vibrating stylus as per Dwg D407-667-145 9- *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-145

150 - ***IMMEDIATELY AFTER GRINDING***

180 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** OUTSIDE SERVICE -CROSSTUBES Liquid Penetrant Inspection as per QSI 038 Or Level 2 Attach copy of NDT results to work order

190 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Inspect for transit damage

200 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Inspect for damage & ensure results are as per Dwg D206-667-145

210 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** ***MASK AREA UNDER CLAMP PRIOR TO PAINTING AS PER DWG*** 1-Prime inside and outside crosstube as per QSI 005 4.2.1 *****Let tube sit up right for 30mins before hanging***** P4500-P-23 Base Batch: P4500-C-23 Catalyst Batch; Start time: Finish: *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 1-Paint outside crosstube with White Imron as per QSI 005 4.2 Imron 55U white paint Batch: Imron 125S activator Batch: Start:

220 - Then,Wrap in plastic bag to protect from scratches

230 - INSTALL GROUNDING CLAMP AND SEAL WITH SIKAFLEX AS PER DWG A/R SIKAFLEX BATCH: 1-Abrade mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports with Proseal 890 per D407-667-145 and QSI 015 A/R Proseal 890 Batch: EXP: 3-Install supports clamps Using Dt9565 as per Dwg D407-667-145 ,Torque to 80-100 IN-LBS. Start: Finish: 4-Install nut plates as per Dwg D407-667-145. Touch-up rivet heads with Imron paint.

240 - ***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***

265 - Photocopy bluefile and create labels as per PPP D407-667-105 CHG005

270 - Identify and pack for shipping as per PPP D407-667-105 Location : FG097

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
D407-667-105TRN	Crosstube Turning Detail	1 Ea (1 ea)	90-Start up Operation	
D2873-043	Nut Plate Assembly	2 Ea (2 ea)	230-Crosstubes	
D2873-045	Nut Plate Assembly	2 pcs (2 ea)	230-Crosstubes	
D2891-1	Support 2.25	2 pcs (2 ea)	230-Crosstubes	
D3595-063-395	Rubber Cushion 0.63" Wide X 3.95" Long	4 pcs (4 ea)	230-Crosstubes	
MS20601-AD4W10	Rivet	14 Ea (14 ea)	230-Crosstubes	
MS21920-20	Clamp	4 Ea (4 ea)	230-Crosstubes	
AN742D36	Plain Clamp Loop	2 Ea (2 ea)	230-Crosstubes	
MS21042-3	Nut use MS21042L3 per QSI 017	2 Ea (2 ea)	230-Crosstubes	
MS27039-1-08	Screw	2 Ea (2 ea)	230-Crosstubes	
MS9165-05	Bracket	2 Ea (2 ea)	230-Crosstubes	
NAS1149C0332R	Washer	4 Ea (4 ea)	230-Crosstubes	
AN5-10A	Bolt	10 Ea (10 ea)	250-Packaging	
AN5-30A	Bolt	4 Ea (4 ea)	250-Packaging	
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging	
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging	
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging	

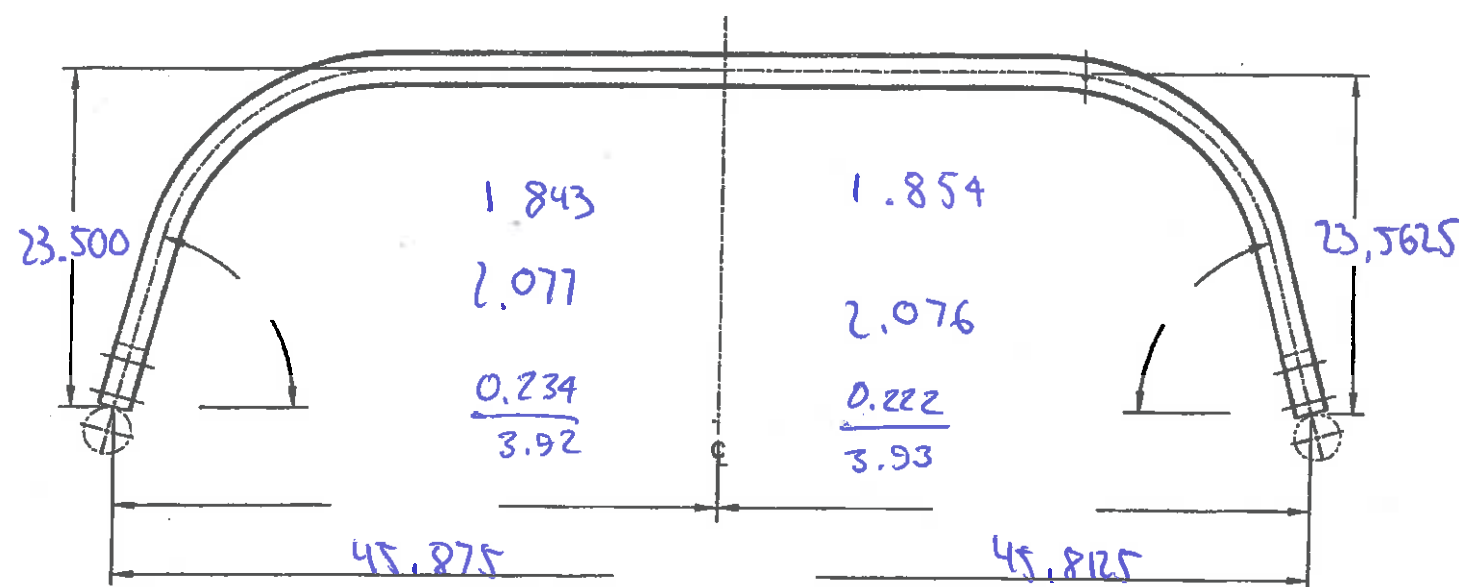
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation 230-Crosstubes	D407-667-105TRN	1	6	0
	AN742D36	2	39	0
	D2873-043	2	58	0
	D2873-045	2	32	0
	D2891-1	2	12	0
	D3595-063-395	4	91	0
	MS20601-AD4W10	14	302	0
	MS21042-3	2	221	0
	MS21920-20	4	143	0
	MS27039-1-08	2	507	0
	MS9165-05	2	25	0
	NAS1149C0332R	4	3,307	0
	AN5-10A	10	194	0
	AN5-30A	4	59	0
	AN5-32A	4	453	0
250-Packaging	MS21042L5	4	318	0
	NAS1149D0563J	18	1,027	0

Part Specifications

Specifications could not be found.

DART AEROSPACE LTD		Work Order:	
Description: Crosstube High Fwd (407)		Part Number:	D407-667-105
Inspection Dwg: D407-667-145 Rev: C		Page 1 of 1	

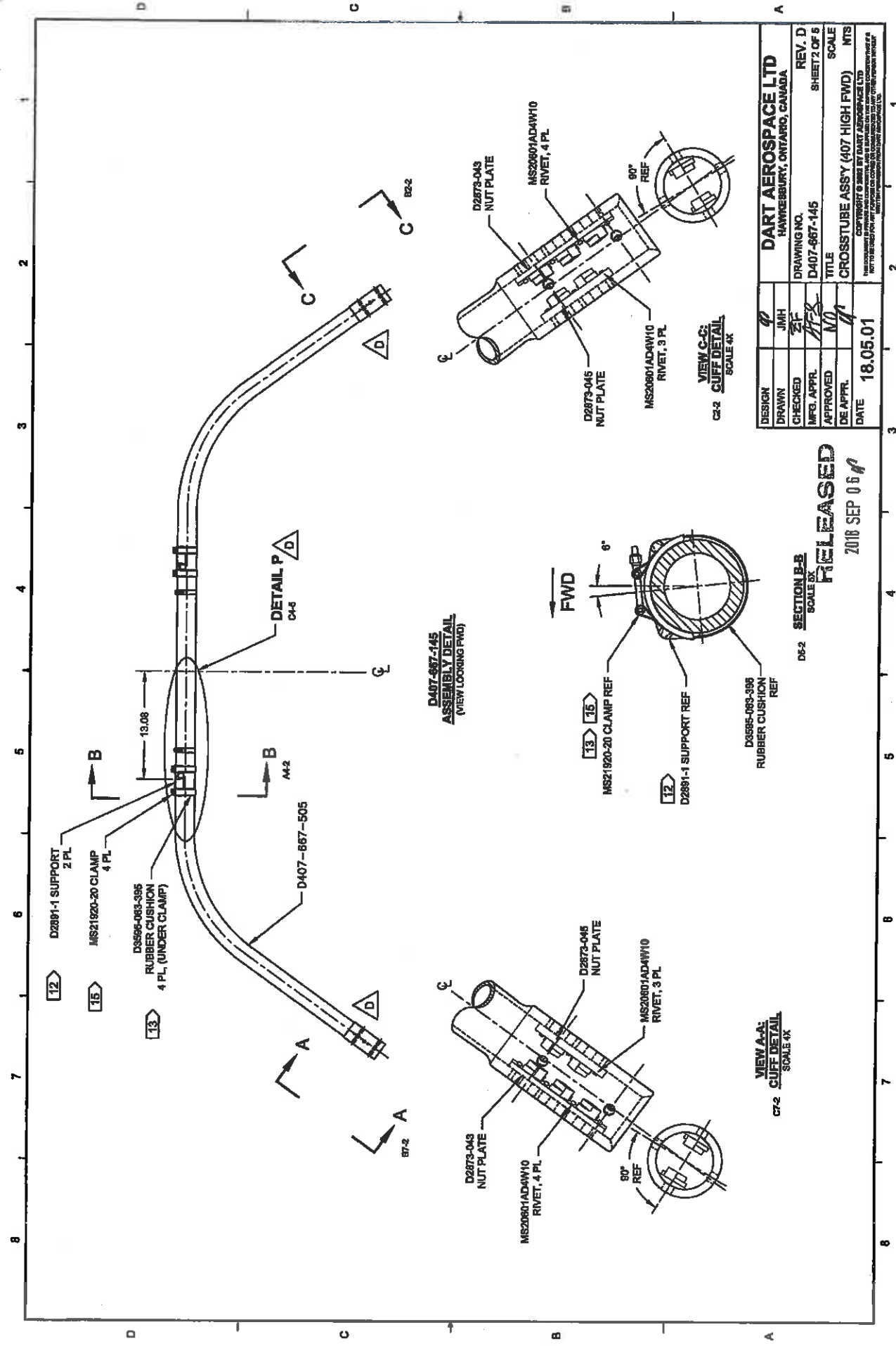
Required Dimension	Min	Max
Height	23.41	23.67
1/2 Span	45.81	46.07
Angle	54	56
Total Span	91.62	92.14
Bending Passes	6	--
Crushing	--	6%



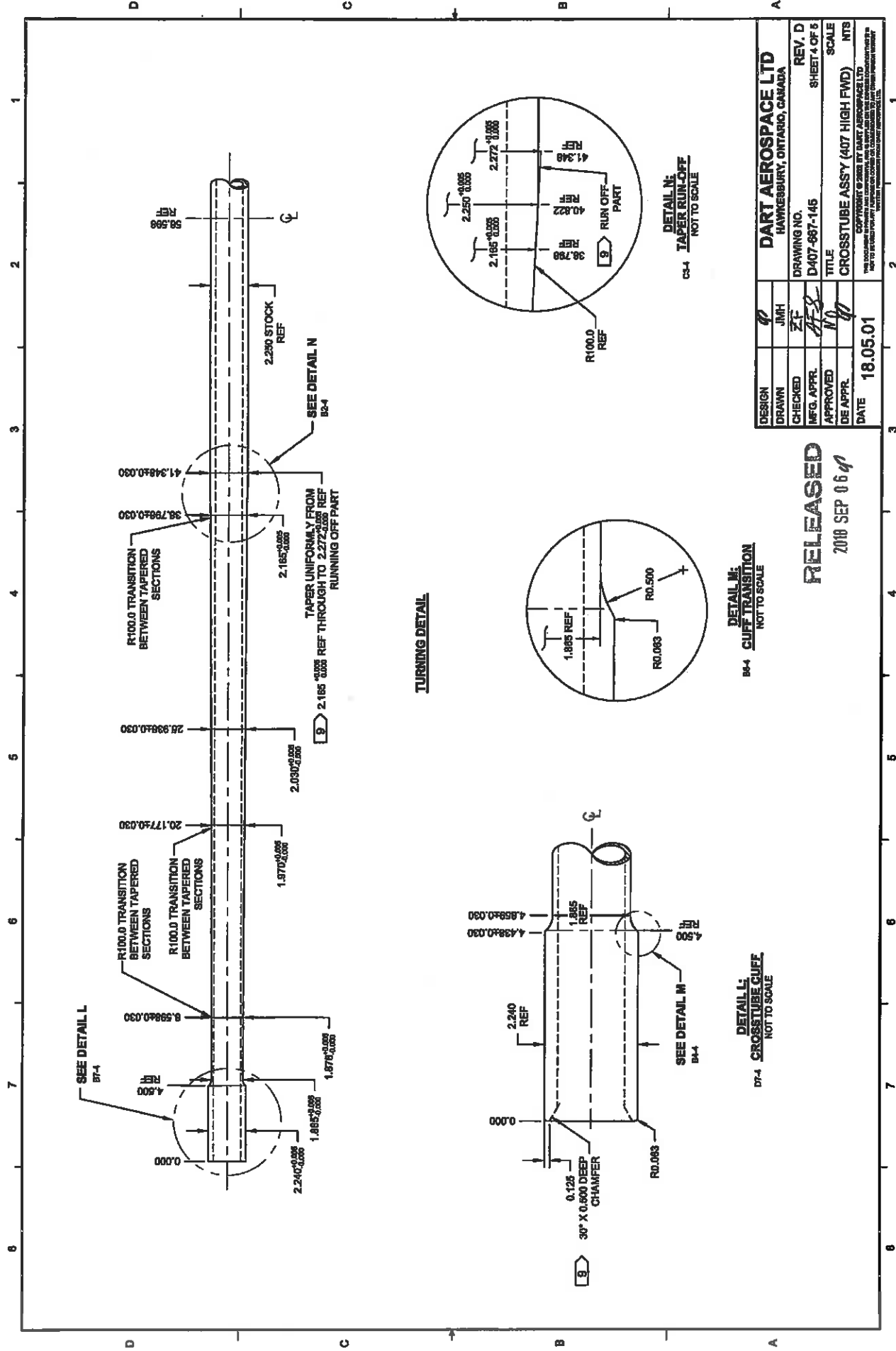
	Side A	Side B
Bending Passes	14	15
Crushing	6.0%	5.6%
Comments		

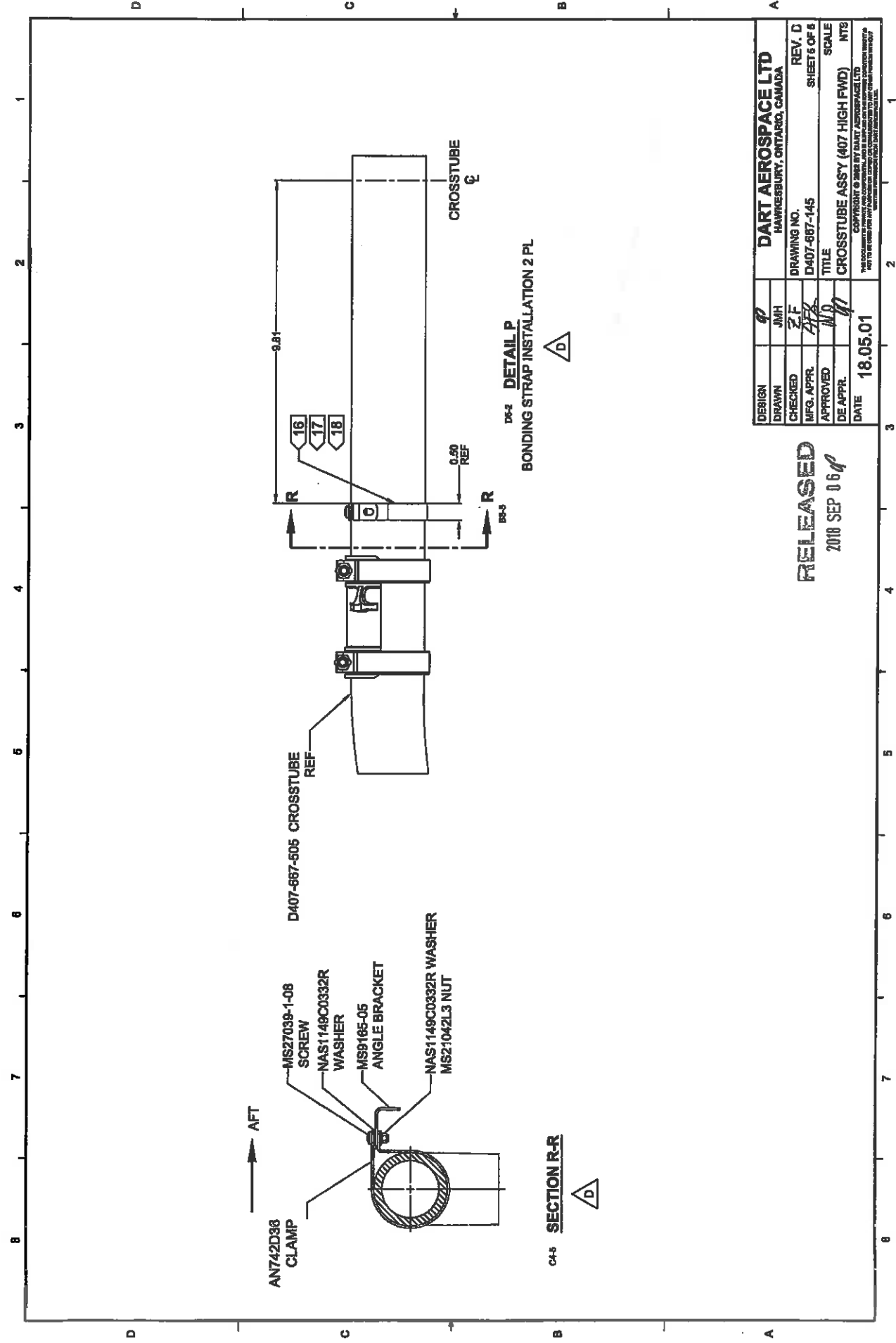
QC15 Inspection	DAS
Date	19/02/06 9-89

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	09.11.12	Dimensions updated per Dwg Rev C	KJ	
C	12.04.16	Added bending, crushing dimensions	KJ	
D	12.10.30	Revised Total Span dimensions & Dwg Rev	KJ	



2018 SEP 06
RELEASED
FOX
ON-B-B





DESIGN	40	DART AEROSPACE LTD
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA
CHECKED	ZF	DRAWING NO.
MFG. APPL.	40	D407-687-145
APPROVED	40	TITLE
DE APPL.	40	CROSSTUBE ASSY (407 HIGH FWD)
DATE	18.05.01	SCALE
		NTS

RELEASED
2018 SEP 06

REV. D
SHEET 6 OF 8

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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042630



Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO042630
PO Date: 2/19/19
Due Date: 2/21/19
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	187761-A	D4884-1	End Fitting, Eye : Various STC's (Outsource process - NDT per QSI038 4.1)ISSUE P/O	Firmed	-	2/21/19	4 pcs	0 pcs	4 pcs	\$98.50/pcs	\$394.00
2	186474	D206- 667- 207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC- 32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08- 16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	189820			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042630



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	189425	D407-667-205MB	Aft Crosstube - High 407, Matte Black : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 0380	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	190372			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00
4	189422	D407-667-105MB	Fwd Crosstube - High 407, Matte Black : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource2 (Outsource process - NDT per QSI038 4.1) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** OUTSIDE SERVICE -CROSSTUBES Liquid Penetrant Inspection as per QSI 038 Or Level 2 Attach copy of NDT results to work order	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	189423			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00
Grand Total:										\$985.00	



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER PO042630



Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A022 Apical Processing

A024 process certifications

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 2/20/19 9:21 AM dart.tsimiklis.chrisoula

 Work Order Traveler Sky Service F.B.O. Inc.		TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 386	
10105 Ryan Avenue, Dorval, Quebec, H9P 1A2			
WO #: MWO39367	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO042630
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT (LIQUID PENETRANT CRACK TEST) ON THE FOLLOWING 6 CROSSTUBES and 4 END FITTINGS EYE:

P/N: D4884-1 END FITTINGS JOB SHEET#187761-A (4 ea)

P/N: D407-667-105MB FWD CROSSTUBE-HIGH 407
1- JOB SHEET# 189422 2- JOB SHEET# 189423

P/N: D407-667-205MB AFT CROSSTUBE-HIGH 407
3- JOB SHEET# 189425 4- JOB SHEET# 190372

P/N: D206-667-207BL AFT CROSSTUBE
5- JOB SHEET# 186474 6- JOB SHEET# 189820

DAS
68
9-89

Action Taken:		Date:	Initial/Stamp:			
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE AS PER ASTM1417M-16		19 FEB 2019				
-NO CRACK FOUND.						
PEN.(ZL-56, MPO13600), DEV.(SKD-S2, MPO11715), CLEANER(SKC-S, MPO MPO19368)						
Description	Location	P/N	Qty	Batch	S/N Off	S/N On

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.		ACA/SCA Stamp	Date:
Signature: 			19 FEB 2019
Name: CHRISTIAN BRIEN			